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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/799,077

03/12/2004

Brent Hughes

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ARRIS INTERNATIONAL, INC
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EXAMINER

DESIR, PIERRE LOUIS

ART UNIT

PAPER NUMBER

2681

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,077

Applicant(s)

HUGHES, BRENT

Examiner

Pierre-Louis Desir

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrabrant et al. (Garrabrant), U.S. Patent No. 6952571, in view of Skinner et al. (Skinner), U.S. Patent No. 6901276.

Regarding claim 1, Garrabrant discloses a method comprising determining whether an active radio frequency ("RF") communication channel is present at a network connection (i.e., periodically measuring the signal strength fluctuations in a wireless connection) (see abstract, also refer to col. 3, lines 15-17); placing at least one portion of the communication device into a sleep mode if an active RF channel or an RF channel that can be made active is not detected (i.e., the main processor is put into a low power (sleep) mode) (see col. 3, lines 17-20); starting a timer set for a predetermined period if an active channel or one of the plurality of possible RF channels is not detected (i.e., the main processor send a command to the DSP which includes a sleep time) (see col. 3, lines 15-17); and awakening the at least one portion from sleep mode when the predetermined period has elapsed (i.e., the internal timer of the DSP periodically (as specified by the sleep time) awakens the DSP) (see col. 3, lines 21-24).

Although Garrabrant discloses a method as described above, Garrabrant does not specifically disclose a method comprising scanning a plurality of possible RF channels to detect whether an RF channel is present that can be made active.

However, Skinner discloses a method comprising scanning a plurality of possible RF channels to detect whether an RF channel is present that can be made active (i.e., broadcast channels used by the wireless network are scanned by the DSP to identify channels that have sufficient strength) (see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement scanning of broadcast channels by the DSP in the method as described by Garrabrant because such implementation would provide periodic signal strength monitoring without unduly depleting the power supply within the device (see Garrabrant col. 2, lines 65-67).

Regarding claim 3, Garrabrant discloses a method (see claim 1 rejection) wherein the at least one portion put into sleep mode includes main processor circuitry (i.e., the main processor is put into a low power mode) (see col. 3, lines 17-18).

Regarding claim 4, Garrabrant discloses a method (see claim 3 rejection) wherein the main processor circuitry includes radio frequency communication circuitry (i.e., the main processor send command to DSP which includes the channel to scan. And, upon detecting fluctuations that exceeds threshold levels, the DSP awakens the main processor to act upon (start communication). Thus, the main processor inherently includes radio frequency communication circuitry) (see col. 3, lines 24-26).

Regarding claim 5, Garrabrant discloses a method comprising determining whether an active RF communication channel is present at a network connection of the communication

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device (i.e., periodically measuring the signal strength fluctuations in a wireless connection) (see abstract, also refer to col. 3, lines 15-17); placing at least one portion of the communication device into sleep mode if an active RF channel or an RF channel that can be made active is not detected (i.e., the main processor is put into a low power (sleep) mode) (see col. 3, lines 17-20); determining whether RF energy is present at the network connection using an RF energy detecting means (see col. 3, lines 24-26); awakening the at least one portion from sleep mode when RF energy is detected by the RF energy detecting means (see col. 3, lines 24-26).

Although Garrabrant discloses a method as described, Garrabrant does not specifically disclose a method comprising scanning a plurality of possible RF channels to detect whether an RF channel is present that can be made active; and scanning the plurality of possible RF channels to detect whether an RF channel is present that can be made active after awakening following detection of the presence of RF energy.

However, Skinner discloses a method wherein broadcast channels used by the wireless network are scanned by the DSP to identify channels that have sufficient strength. When the DSP identifies acceptable channels, it wakes up the main processor and identifies the channels having sufficient signal strength (see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement scanning of broadcast channels by the DSP in the method as described by Garrabrant because such implementation would provide periodic signal strength monitoring without unduly depleting the power supply within the device (see Garrabrant col. 2, lines 65-67).

Regarding claim 6, Garrabrant discloses a method (see claim 5 rejection) further comprising: starting a timer set for a predetermined period if one of the plurality of possible RF

channels is not detected following detection of the presence of RF energy (i.e., the main processor send a command to the DSP which includes a sleep time) (see col. 3, lines 15-17); placing the at least one portion of the communication device into sleep mode if an RF channel that can be made active is not detected following starting of the timer (see col. 3, lines 17-20); and awakening the at least one portion from sleep mode when the predetermined period has elapsed (i.e., the internal timer of the DSP periodically (as specified by the sleep time) awakens the DSP) (see col. 3, lines 21-24).

3. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrabrant and Skinner, in further view of Matsunaga et al. (Matsunaga), Pub. No. US 2004/0033812.

Garrabrant and Skinner disclose a method as described above (see claims 1 and 5 rejections).

Although the combination (Garrabrant and Skinner) discloses a method as described, the combination does not specifically disclose a method further comprising detecting the restoration of offsite power while the timer is counting down the predetermined period and awakening the at least one portion from sleep mode (upon restoration of off site power).

However, Matsunaga discloses a method wherein when it is detected that that an AC power supply is used to operate the computer system, the operation mode is set to the normal mode (see page 4, paragraphs 50-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Matsunaga with the teachings as described by

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Garrabrant and Skinner to arrive at the claimed invention. A motivation for doing so would have been to switch power consumption from the battery to the AC power supply is detected, which would prolong the service life of the battery.

4. Claims 8-16, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrabrant in view of Gibbons et al. (Gibbons), U.S. Patent No. 6085114.

Regarding claim 8, Garrabrant discloses a system (see abstract) comprising a processor means for determining whether to reduce power consumption of the communication device (i.e., portable computer systems are enabled to be placed into a minimum or low power mode such as sleep mode or a deep sleep mode, while the system is not processing a specific function or particular operation) (see col. 1, line 66 to col. 2, line 2); and a switching means for placing at least one circuitry portion of the communication device in a sleep mode by inherently interrupt power from the battery (i.e., the main processor is put into a low power (sleep) mode) (see col. 3, lines 17-19). Garrabrant also discloses a central (main) processor, which as known in the system functions as the brain of the device and inherently connected or coupled to all the component of the device (e.g., via bus 130), which would inherently include component which controls the operation of the battery (see fig. 4).

Although Garrabrant discloses a system as described, Garrabrant does not specifically disclose a system comprising a controller means coupled to the UPS for controlling operation of the UPS; and in response to a control signal from the controller to interrupt power to at least one circuitry portion.

However, Gibbons discloses a system comprising a controller coupled to the UPS for controlling operation of the UPS (see col. 2, lines 55-59), and in response to a control signal from the controller to interrupt power to at least one circuit portion (see col. 2, lines 58-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Garrabrant with the teachings as described by Gibbons to arrive at the claimed invention. A motivation for doing so would have been to ensure the proper functioning of the device without unduly depleting the power supply within the device (see Garrabrant col. 2, lines 65-67).

Regarding claim 9, Garrabrant discloses a system (see claim 8 rejection) further comprising an RF detecting means for determining whether RF energy is present at the network connection (i.e., periodically measuring the signal strength fluctuations in a wireless connection) (see abstract, also refer to col. 3, lines 15-17).

Regarding claim 10, Garrabrant discloses a system (see claim 9 rejection) wherein the RF detecting means can detect the presence of RF energy while the at least one circuitry portion is in sleep mode (see col. 3, lines 24-26).

Regarding claim 11, Garrabrant discloses a system (see claim 8 rejection) wherein the processor includes RF communication circuitry (i.e., the main processor send command to DSP which includes the channel to scan. And, upon detecting fluctuations that exceeds threshold levels, the DSP awakens the main processor to act upon (start communication). Thus, the main processor inherently includes radio frequency communication circuitry) (see col. 3, lines 24-26).

Regarding claim 12, Garrabrant discloses a system (see claim 9 rejection) wherein the RF detecting means and the processor share passive RF components (i.e., the DSP is capable of

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awakening the main processor if a detection is made, and the main processor sends command to the DSP) (see col. 3, lines 15-16, and lines 24-26).

Regarding claim 13, Garrabrant discloses a system (see claim 8 rejection) wherein the UPS includes the switching means (i.e., the DSP periodically awakens (switches) from the sleep mode, which inherently affects the UPS. Thus, one skilled in the art would unhesitatingly conceptualize that the UPS includes the DSP) (see col. 3, lines 20-24).

Regarding claim 14, Gibbons discloses a system (see claim 8 rejection) wherein the controller includes computing means for storing and running executable instruction code (see col. 2, lines 60-67. Also refer to claim 8 reasoning for combining).

Regarding claim 15, Gibbons discloses a system (see claim 14 rejection) wherein the instruction code includes a timer for maintaining the at least one circuitry portion in a sleep mode for a predetermined period of time (i.e., frame count) (see col. 2, lines 65-67. Also refer to claim 8 for reason for combining).

Regarding claim 16, Garrabrant discloses a system (see claim 8 rejection) wherein the at least one circuitry portion includes the processor (i.e., main processor) (see col. 3, lines 13-20).

Regarding claim 18, Garrabrant discloses a system (see claim 8 rejection) wherein the processor means includes computing means for storing and running executable instruction code (see col. 7, lines 32-39).

Regarding claim 19, Garrabrant discloses a system (see claim 18 rejection) wherein the executable instruction code includes a method for making the determination as to whether to place the at least one circuitry portion in sleep mode on the presence of an active communication channel (see fig. 5, and col. 8, line 65 to col. 9, line 65).

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Regarding claim 20, Garrabrant discloses a system (see claim 14 rejection) wherein the instruction code includes a method for awakening the at least one circuitry portion from sleep mode upon the occurrence of a predetermined factor (see Garrabrant col. 3, lines 24-26, and Gibbons col. 2, lines 65-67).

Regarding claim 21, Garrabrant discloses a system (see claim 20 rejection) wherein the predetermined factor is the elapsing of a predetermined period of time measured by a timer (see Garrabrant col. 3, lines 20-24, and Gibbons col. 2, lines 65-67).

Regarding claim 22, Garrabrant discloses a system (see claim 20 rejection) wherein the predetermined factor includes the detection of the presence of RF energy at the network connection (see col. 3, lines 24-26).

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrabrant and Gibbons, in further view of Matsunaga.

The combination (Garrabrant and Gibbons) discloses a system as described above (see claim 8 rejection).

Although the combination discloses a system as described, the combination does not specifically disclose a system wherein the controller includes a monitoring means coupled to the UPS for sensing when off site AC power is present at the UPS.

However, Matsunaga discloses a system including means coupled to the UPS for sensing when off site AC power is present at the UPS (see page 4, paragraphs 50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Matsunaga with the teachings as described by

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
Garrabrant and Skinner to arrive at the claimed invention. A motivation for doing so would have been to switch power consumption from the battery to the AC power supply is detected, which would prolong the service life of the battery.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is (571) 272-779. The examiner can normally be reached on Monday-Friday 8:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Pierre-Louis Desir
AU 2681
10/29/2005


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER